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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,301	09/16/2003	Donna Jean Crowther	2002U023.US	4331

7590 08/19/2005

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EXAMINER
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LU, C CAIXIA

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/664,301

Applicant(s)

CROWTHER ET AL.

Examiner

Caixia Lu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

S.O.D

**DETAILED ACTION*****Specification***

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.

Throughout the specification, the abbreviation "MFR" is erroneously and interchangeably used to represent both "melt flow rate" and "melt flow ratio", which results in inconsistency and confusion in the disclosure. The "melt flow rate" is a term which is equivalent to melt index and has a unit such as dg/min or g/10 min, while "melt flow ratio" means the ratio of flow index to melt index and does not have a unit. The term "melt flow rate" relates to molecular weight, for the same polymer structure, the lower the molecular weight, the higher the melt flow rate. The term "melt flow ratio" relates to the molecular weight distribution, the broader the molecular distribution, the higher the melt flow ratio. It is the mixture of the High Melt Flow Rate catalyst and the Low Melt Flow Rate catalyst which provides a polyolefin with broad molecular weight distribution, i.e., high melt flow ratio. In general, the metallocene complexes such as those disclosed in the instant application, when used alone, only provide polyolefins with narrow molecular weight distribution, i.e., low melt flow ratio.

The following are some of the informalities noted by the examiner and applicants are requested to check through the specification carefully and make similar changes:

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In line 12 of page 2, the "MFR" correctly represents "melt flow rate" for the catalyst which provides low molecular weight, the "MFR" in line 26 of page 2 should also refer to "melt flow rate", therefore, there should be a unit such as dg/min following the number of "50".

In line 3 of page 3, the term "melt flow rate" should be "melt flow ratio".

In line 8 of page 5, the word "scribed" appears incomplete.

In line 13 of page 8, the term "melt flow ratio" should be "melt flow rate".

In lines 1, 4 and 16 respectively of page 9, the term "melt flow ratio" should be "melt flow rate". Similar corrections also applied to lines 27, 29, and 30 of page 13.

In line 17 of page 9, the unit "g/min" after the number "50" is missing. Similar corrections also applied to line 31 of page 13.

If the applicants disagree with the above corrections, applicants are invited to contact the Examiner for a phone interview to finalize the issue.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, the abbreviation "MFR" is not defined. According the specification, "MFR" represents both "melt flow rate" and "melt flow ratio", "MFR" appears to refer "melt flow rate" here. Clarification is requested.

Claim 2, the unit of "MFR of 50" should be specified.

***Claim Rejections - 35 USC § 103***

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewen et al. (US 4,530,914) in view of Reddy et al. (US 5,648,428) and Miya et al. (US 4,931,417) for the same rationale as set forth in the previous Office action mailed April 25, 2005.

***Response to Arguments***

4. Applicant's arguments filed July 8, 2005 have been fully considered but they are not persuasive.

Applicants traversed the rejections under 35 U.S.C. 112, second paragraph, however, the rejections are maintained for the same rationale as set forth in the section under the objection of the Specification above.

Regarding the rejections under 35 U.S.C. 103, applicants argue that Reddy does not disclose combining a supported "activated High MFR catalyst system" with another catalyst "in the substantial absence of additional activator", thus, the teaching of Reddy, combined with Ewen, does not disclose Applicant's claimed invention. However, it is the Examiner's position that it is Reddy's teaching of preparation of suspending the metallocene catalyst solid articulates in mineral oil which is employed to Ewen's catalyst preparation process to provide a catalyst composition which is easy to handle with minimized exposure to the harmful environment. Therefore, applicants' arguments here are irrelevant. The rejections are still deemed proper and thus maintained.

***Conclusion***


5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.

  
Caixia Lu, Ph. D.  
Primary Examiner  
August 14, 2005